

REMARKS

I. Status

Claims 1, 3-7, and 9-18 are pending in the application. Claims 10-17 are withdrawn, and claims 1, 3-7, 9, and 18 are rejected.

II. Claim Rejections - 35 U.S.C. § 103

Claims 1, 3-7, 9, and 18 remain rejected under 35 U.S.C. § 103(a) as being unpatentable over Georger et al. (US 5,324,591) in view of Kobayashi et al. (US 6,294,313) and Singhvi et al. (US 5,776,748). The Examiner refers to the Office Action of May 20, 2010 and provides further reasons for rejection on pages 2-4 of the Office Action.

The Examiner takes the position that the cells of Singhvi are in a patterned state because the cells that are transferred have specified coordinates, citing column 17 and 18. Namely, the Examiner asserts that Singhvi teaches that the cells on the first plate are in a patterned state and, when the desired cells are transferred to the second plate, the exact coordination for the cells transferred would remain intact on the second plate, thereby transferring cells to the second plate “in a patterned state.” The Examiner contrasts such teaching with cells being released randomly and losing their original coordination (pattern).

The Examiner acknowledges that Singhvi teaches an embodiment directed to a single cell transfer process. At the same time, the Examiner cites column 18, lines 8-18 of Singhvi for the proposition that Singhvi teaches transferring cells on multiple islands at the same time to a secondary plate having corresponding islands to the primary plate. The Examiner interprets such a transfer step to transfer cells “in a patterned state.”

In response to Applicants’ remarks regarding the fundamental difference between outgrowth in a cell culture and segregation of individual cells, the Examiner states that the

method step of transferring desired cells from the first plate to the second plate taught by Singhvi can be followed by culturing the cells in predetermined pattern on the second plate. The Examiner concludes that it would have been obvious to selectively transfer desired cells in a pattern from the first plate to the second plate, and then culture to outgrow the cells on the second plate for the subsequent use.

Applicants traverse and submit the following.

(1) Applicants maintain that Singhvi does not teach or suggest transferring cells in a patterned state as claimed. Although the Examiner cites columns 17 and 18 of Singhvi for the proposition that the cells having “specified coordinates” are in a patterned state, the technical disclosure of Singhvi is directed to cells in *an individual state* rather than cells in *a patterned state*. For example, the method of Singhvi details identifying individual cells (col. 17, lines 8-11), binding individual cells (col. 17, line 16), and retrieving individual cells (col. 17, line 42). Singhvi specifically teaches that “the present invention provides for...isolating and manipulating particular individual cells which are present on a plate containing a great multiplicity of cells separated one from another by only a few microns” (col. 17, lines 45-47). That is, Singhvi teaches the transfer of one or more cells from a library to a secondary plate.

Applicants further submit that the cited “secondary plates...which would retrieve more than one cell by constructing a secondary plate with biophilic SAM islands corresponding spatially to more than one island on the primary plate” (Singhvi, col. 18, lines 8-12) does not meet the patterned state as claimed. Rather, the cited embodiment of Singhvi is directed to the transfer of a plurality of individual cells (each of technically differing character) onto a secondary plate in a manner that a skilled artisan would not consider to be “a patterned state.”

Also, a skilled artisan particularly would not consider that Singhvi teaches or suggests “a patterned state” that would be suitable for culturing together as claimed.

(2) Applicants also maintain that a skilled artisan would not have modified the cited references as suggested by the Examiner.

The transfer step disclosed in Singhvi is expressly applied to cells identifiably segregated on the islands of the primary plate (see, col. 17, ln. 48-49 and 53-57; col. 18, ln. 23-29). In contrast, Georger does not segregate individual cells on the patterned substrate (see, *e.g.*, Fig. 3A) and, instead, Georger is directed to the outgrowth of cells in a cell culture.


Specifically, a skilled artisan would readily appreciate the fundamental difference between outgrowth in a cell culture and segregation of individual cells.

Accordingly, a skilled artisan would not have applied the transfer step of Singhvi to the patterned substrate of Georger.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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